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Monroeville, PA 15146			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)	
		10/645,035	RING ET AL.	
	Office Action Summary	Examiner	Art Unit	
		Melody M. Burch	3683	
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the o	correspondence address	
A SH WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DAIS nisons of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period we are to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tinuity iiiii apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. mely filed I the mailing date of this communication. ID (35 U.S.C. § 133).	
Status				
2a)□	Responsive to communication(s) filed on <u>31 Desemble</u> This action is FINAL . 2b) This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro		
Disposit	ion of Claims			
5)□ 6)⊠ 7)□	Claim(s) 1-13 and 16-21 is/are pending in the at 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-13 and 16-21 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	vn from consideration.		
Applicat	ion Papers			
10)🖾	The specification is objected to by the Examinel The drawing(s) filed on <u>14 August 2006</u> is/are: Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction The oath or declaration is objected to by the Example 1.	a) accepted or b) dobjected drawing(s) be held in abeyance. Se ion is required if the drawing(s) is ob	e 37 CFR 1.85(a). ejected to. See 37 CFR 1.121(d).	
Priority (under 35 U.S.C. § 119			
12) [a)	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau See the attached detailed Office action for a list of	s have been received. s have been received in Applicat ity documents have been receive I (PCT Rule 17.2(a)).	ion No ed in this National Stage	
2) Notice 3) Information	et(s) te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) ter No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	ate	

DETAILED ACTION

1. In view of the appeal brief filed on 12/31/07, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Robert A. Siconolfi/

Supervisory Patent Examiner, Art Unit 3683

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Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the push rod and a shield as recited in claim 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Examiner notes that the shield is shown at elements 64, 66, and 76 as explained by Applicant in the drawing objection petition, but the push rod is not shown. Applicant points to elements 72 and 74 as representing the push rod. However, in paragraph [0039] of the application, Applicant describes element 72 as a force transfer lever engaging portion and element 74 as a cavity. Examiner also notes that elements 64, 66, and 76 appear to represent the recited the first vertical plate member, horizontal plate member, and second vertical plate member, respectively. See 112 rejection below.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filling date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide proper antecedent basis for the term "control linkage" recited in line 2 from the bottom of claim 1.

Claim Objections

5. Claims 1-13 and 16-21 are objected to because of the following informalities: the phrase "plate like" first recited in line 1 of subparagraph (a) of claim 1 must be changed

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to remove the term "like." Appropriate correction is required. This example is not intended to be exhaustive. The use of the term "like" exists throughout the claims. The remaining claims are objected to due to their dependency from one of claims 1, 6, 9, and 19.

- 6. Claims 9-13 and 16-18 are objected to because of the following informalities: the term "forth" in line 13 from the bottom should be changed to --fourth--. Appropriate correction is required. The remaining claims are objected to due to their dependency from claim 9.
- 7. Claims 6-8 are objected to because of the following informalities: the phrase "foreign when" in the second to last line of subparagraph (a) in claim 6 should be reworded. Appropriate correction is required. The remaining claims are objected to due to their dependency from claim 6.

Claim Rejections - 35 USC § 112

- 8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 9. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the Examiner whether the shield member recited in lines 2-3 from the bottom of claim 10 is intended to be different or the same as the two vertical plate members and the horizontal plate member recited in claim 9. In the drawing objection petition, Applicant explained that elements 64, 76, and 66 represented the shield, however, as best understood, elements 64 and 76 represent 2

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of the vertically disposed plate members and element 66 represents one of the horizontally disposed plate members recited in claim 9. Again, it is unclear to the Examiner whether the shield is intended to include the vertical and horizontal plate members or is it intended to be distinct from the plate members. Clarification is required.

Claim Rejections - 35 USC § 103

- 10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 11. Claims 1-3, 5-7, 9, 11-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6792704 to Johnson in view of US Patent 6116385 to Ring.

Re: claim 1. Johnson shows in figures 1 and 2 an actuating member capable of being used for a railway vehicle brake assembly, such vehicle brake assembly having an air bag actuator 1 incorporated therein, said actuating member comprising: a first substantially vertically disposed plate like member or one of elements 20, said first substantially vertically disposed plate like having a first substantially planar surface engageable, via intervening elements 18(b), with a first surface of a second substantially vertically disposed plate like member or other of elements 20 attached to such air bag actuator, a substantially horizontally disposed plate like member 18(b)

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connected to the first substantially vertically disposed plate like member adjacent a bottom edge thereof and extending substantially perpendicular to the first planar surface of the first vertically disposed plate member for shielding at least a first portion of the air bag actuator from foreign material as shown, and a means 17 connected to a radially opposed second surface of the first vertically disposed plate like member via intervening elements for securing the actuating member to a control linkage 5 of the assembly.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claims 2 and 3. Johnson, as modified, shows in figures 1 and 2 of Johnson wherein the actuating member further includes a first plate like member 19 connected to an upper surface of the substantially horizontally disposed member via intervening elements and to the first planar surface of the first substantially vertically disposed plate like member adjacent a first side edge thereof and extending substantially perpendicularly to at least the substantially horizontally disposed member for shielding at least a second portion of such air bag actuator from the detrimental extraneous

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foreign material and for providing added strength between the first substantially vertically disposed member and the substantially horizontally disposed member. With regards to claim 2, the second plate like member is the other element 19 shown behind element 4 in figure 2.

Re: claim 5. Johnson, as modified, shows in figure 1 of Johnson the means 17 including at least one plate member 17 having an aperture formed therethrough shown surrounding element 12 and a pin member 12 disposed in the aperture for securing the at least one plate member to such control linkage.

Re: claim 6. Johnson shows in figures 1 and 3 an apparatus for mounting an air bag actuator to at least one brake beam, the air bag actuator having at least one inflatable air bag spring 3, the apparatus comprising: a first substantially vertically disposed plate like member or one of elements 20 having a planar surface portion for engagement with a substantially planar surface portion of a second substantially vertically disposed plate like member or the other of elements 20 connected to such air bag actuator, the first substantially vertically disposed plate like member exposing at least a first portion of an exterior surface of such at least one inflatable air bag spring to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign when such car mounted brake assembly is in use, a guide means 18(a) directly connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to the planar surface portion of the first substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of such air bag actuator and a securing means 12,17 connected to the first substantially

vertically disposed plate like member via intervening element such as element 13 for enabling attachment of the apparatus to a rigid structure.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claim 7. Johnson, as modified, teach in figures 1 and 2 of Johnson, the limitation wherein the apparatus includes a second guide means 18(b), the second guide means directly connected to and disposed closely adjacent a second outer edge of and substantially perpendicular to the planar surface portion of the first substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of the air bag actuator.

Re: claim 9. Johnson shows in figures 1 and 2 an air spring actuator assembly, the air spring actuator assembly comprising: at least one air bag spring 3 having at least a first portion of an exterior surface exposed to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign material during use of the air spring actuator assembly, a first substantially vertically disposed plate like

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member or one of elements 20, the first substantially vertically disposed plate like member having a first substantially planar surface engageable with a first surface of a second substantially vertically disposed plate like member or the other of elements 20 attached to the at last one air bag spring, a substantially horizontally disposed plate like member 18(b) connected to the first substantially vertically disposed plate like member adjacent a bottom edge thereof and extending substantially perpendicular to the first substantially planar surface of the first substantially vertically disposed plate like member for shielding the at least said first portion of the exterior surface of the at least one air bag spring from the detrimental extraneous foreign material, a means 4 connected via intervening elements to a radially opposed second surface of the first substantially vertically disposed plate like member for securing the first substantially vertically disposed plate like member to a control linkage 6 of a vehicle brake assembly via intervening elements, a third substantially vertically disposed plate like member or one of elements 17 having a second planar surface portion for engagement with a substantially planar surface portion of a fourth substantially vertically disposed plate like member or other of elements 17 via intervening elements connected to the at least one air bag spring via intervening elemnents, a guide means 18(a) connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to at least one of the first substantially planar surface and the second planar surface portion of a respective one of the first and the third substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of the air bag spring and a

securing means 12 connected to the third substantially vertically disposed plate like member for enabling attachment of the air spring actuator assembly to a rigid structure.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claims 11 and 12. Johnson, as modified, shows in figures 1 and 2 of Johnson the means for limiting reciprocal motion being in the form of a plate shown between the top of air spring 3 and the plate 18(a).

Re: claims 13 and 18. See the air inlet connected to the line on which elements 26 and 27 are located as shown in figure 2 of Johnson. The means for controlling volume of air includes element 26.

Claim Rejections - 35 USC § 103

- 12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-3, 5-7, 9, 11-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 6142480 to Streitman et al.

Johnson, as modified, is not explicit with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines.

14. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 3768826 to Hickman.

Johnson, as modified, shows the vertically disposed plate member being attached to the horizontal plate member of the air bag actuator, but is silent with regards to the attachment resulting from apertures (through which fasteners pass).

Hickman teaches in figure 15 the use of a vertically disposed plate 105 having at least one aperture (shown corresponding to the apertures on element 119) for enabling

attachment to a horizontally disposed plate member 116 by way of fasteners passing through the at least one aperture.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the means for enabling fastening of Johnson, as modified, to have included apertures, as taught by Hickman, in order to provide a functionally equivalent means of fastening two components to ensure proper operation of the device and two improve reliability.

15. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and Hickman and further in view of Streitman et al.

Johnson, as modified, is not explicit with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines.

16. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al.

Johnson, as modified, describes the invention substantially as set forth above, but does not include the limitation of a visual travel indicator.

Cassou et al. teach in col. 4 lines 2-5 the limitation of an actuator including a visual travel indicator or markings 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Johnson, as modified, to have included a visual travel indicator, as taught by Cassou et al., in order to provide a means of monitoring the operation of the air spring actuator to ensure that is inflating and deflating to acceptable levels.

17. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson and Ring in view of Streitman et al. as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al.

Johnson, as modified, describes the invention substantially as set forth above, but does not include the limitation of a visual travel indicator.

Cassou et al. teach in col. 4 lines 2-5 the limitation of an actuator including a visual travel indicator or markings 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Johnson, as modified, to have included a visual travel indicator, as taught by Cassou et al., in order to provide a means of monitoring the operation of the air spring actuator to ensure that is inflating and deflating to acceptable levels.

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18. Claims 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art recited above the "improvement" phrase in claim 19 in view of Johnson.

The admitted prior art recites the railway environment, but the admitted prior art is silent as to the specific detail of the air spring actuator.

Johnson teaches in figures 1 and 2 an air spring actuator 1 comprising: a first substantially vertically disposed plate like member or one of elements 20 having a first substantially planar surface and a means 12 connected to the first substantially vertically disposed plate like member via intervening elements for securing the air spring actuator to such second control linkage 6, a second substantially vertically disposed plate like member or other of elements 20 having a second substantially planar surface and a means 19 connected to the second substantially vertically disposed plate like member for securing the air spring actuator to one of the beam 10, such second force transmitting member and a combination thereof, and at least one inflatable air bag spring 3 having a pair of substantially vertically disposed planar surfaces 17,17 for engagement with and attachment to the first substantially planar surface of the first substantially vertically disposed plate like member and the second substantially planar surface of the second substantially vertically disposed plate like member via intervening elements whereby selective inflation and deflation of the at least one inflatable air bag spring in a longitudinal direction enables a reciprocal motion thereof to move such control linkages and such force transmitting members for actuating and deactuating such brake beams wherein an exterior surface of the at least one inflatable air bag

spring is at least partially exposed within such brake assembly to an atmosphere when such brake assembly is in use.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the air spring actuator of the admitted prior art to have included an air spring actuator, as taught by Johnson, in order to provide a means of maintaining the spring brake actuator in an exposed state to facilitate monitoring for maintenance purposes and to provide easy accessibility. With regards to claims 20 and 21, see element 18(a) as the means for shielding and guiding and aligning.

19. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art in view of Johnson and further in view of US Patent 6142480 to Streitman et al.

Admitted prior art, as modified, is silent with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines.

Allowable Subject Matter

20. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. See the drawing objection and 112 rejection with respect to claim 10.

Response to Amendment

21. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

22. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb October 1, 2008

/Melody M. Burch/ Primary Examiner, Art Unit 3683